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Introduction

Educators, parents, and policymakers agree that every child deserves a caring, competent, and qualified teacher. Research shows that the quality of teaching in our classrooms is the most important in-school factor in improving student achievement.¹ That is why policymakers at all levels are focusing on teacher quality—specifically on the issues of teacher recruitment, preparation, licensing and certification standards, and professional development.

The Role of the U.S. Department of Education

One role of the U.S. Department of Education is to support and encourage state and district efforts to improve teaching in America. This objective is addressed through targeted grant programs, the reporting of data on teacher quality, sponsorship of research on effective teaching practices, and dissemination of information about these practices. To help raise awareness of the nation's teacher-quality challenges, the Department has published an information kit entitled *A Talented, Dedicated, and Well-Prepared Teacher in Every Classroom*. This kit outlines the challenges that states and districts face in ensuring excellent teaching and provides the most current national data regarding teacher quality. (To order, call toll-free at 1-877-4ED-PUBS, or see a copy online at: www.ed.gov/teacherquality/invest.)

Policy and Practice Barriers

Many states and districts know these challenges all too well. However, despite increased awareness of our teacher-quality challenges and earnest efforts to address them, we, as a nation, are still far from having a caring and competent teacher in every classroom. One reason we have not made sufficient progress toward our goal is that the problems we face in ensuring high-quality teaching—far from being eradicated by state and local policies and practices—are often created or exacerbated by these policies and practices. They stand as unnecessary barriers to improving teaching in America and make the challenges we face more difficult. Failure to understand these barriers and the root causes of our teacher-quality challenges often has led to inappropriate or inadequate policy decisions.

For example, many policymakers are aware of disturbing statistics that show large percentages of teachers do not have even a minor in the subjects in which they are teaching.² Many policymakers assume the cause of these disturbing statistics is that prospective teachers major in education, a major they view as devoid of subject-specific content. As a result, a number of state and federal legislators are urging

enactment of laws that would require all teachers to have an academic degree. The reality, however, is quite different. Consider high school teachers: Almost all (95 percent) have a major in either an academic field or in education in a specific subject area.³ In fact, the fundamental cause of high school teachers not having even a minor in the subjects in which they teach is not the lack of an academic major, but the practice of assigning teachers to teach out-of-field. Thus, creating policies that require all teachers to have an academic major will have limited impact on this serious problem.

Eliminating the Barriers to Improving Teaching

Eliminating the barriers to quality teaching will require a strong commitment to address the fundamental causes of our teacher-quality challenges and a willingness to think “outside of the box.” The following pages examine a wide range of policies and practices that are all too frequent barriers to quality teaching. While your community may not face each of these barriers, we urge you to use this guide to identify those that it does face and to begin finding ways to address them.

The following pages also include examples of programs and activities designed to eliminate specific barriers to quality teaching. We do not necessarily endorse each of these examples; indeed, some may be very controversial. However, we hope these examples will stimulate thought and discussion among those seeking creative, effective ways to overcome existing barriers to better teaching. By working together, educators and policymakers can eliminate these barriers and develop thoughtful, comprehensive policies and practices that will ensure a talented, dedicated, and well-prepared teacher in every classroom.

Note: In this book, some interrelated issues will appear in more than one section. We do this in order to make each section independent and comprehensive.

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Recruitment of Quality Teachers

Why Is Action So Urgently Needed?

- **Enormous Need for More Classroom Teachers.** School districts in the United States need to hire 2.2 million teachers within the next decade.⁴
- **Thousands of Qualified Teachers Choosing Not to Teach.** For example, only 42 percent of 1992-93 college graduates who prepared to teach applied for a teaching job between 1994 and 1997.⁵
- **Acute Shortages of Qualified Teachers in Key Subject Areas.** Of schools with vacancies in certain fields, over 50 percent found those in the following fields difficult to fill: special education, English as a Second Language (ESL)/bilingual education, foreign language, physical science, and mathematics.⁶
- **Lack of Diversity.** Minority students comprise 36 percent of our nation's student population⁷, but only 13 percent of our teachers are minorities.⁸

Recruitment of Quality Teachers

Barrier 1: LACK OF INCENTIVES TO TEACH

- **Low salaries**
- **Noncompetitive benefits as compared with other fields**
- **Lack of portability of credentials, pensions, and credited years of experience**

PROMISING ALTERNATIVES

- Create additional opportunities for pay increases based on knowledge, performance, and skills.
- Offer higher salaries to those with dual certification who agree to teach both fields if at least one is a high-needs subject area.
- Consider raising salaries by making teaching a year-round profession.
- Offer student loan forgiveness, relocation benefits, signing bonuses, and/or tax incentives.
- Permit the hiring of retired teachers in critical shortage areas—allowing retired teachers to maintain full retirement benefits, while also earning a full salary.

EXAMPLES

In 1986, Connecticut made an investment of more than \$300 million in raising standards for teacher education and licensing while increasing teacher salaries to the highest in the nation. As a result of this foresight, teacher shortages have been eliminated across the state, even in the cities.

Several states, such as Kentucky, South Carolina, and Tennessee, have enacted legislation to allow retired teachers to be rehired in critical shortage areas while maintaining their full retirement benefits.

When Gwinnett County schools, a district of metropolitan Atlanta, observed many teacher applicants turning down job offers, they decided to survey area principals and find out why. Survey results found 90 instances where applicants refused interviews or job offers because of the county's policy giving veteran teachers half credit on the pay scale for their years of classroom experience. As a result, Gwinnett County changed its policy and now gives full credit for years of experience on the salary schedule.

Cincinnati public schools, in collaboration with the teachers' union, ratified plans to change their traditional pay schedule to one based on classroom performance. Teachers advance up a four-step career ladder by meeting district goals. In addition to undergoing comprehensive reviews, teachers must submit portfolios that include logs of parent contacts, sample lesson plans and student work, and a list of professional development activities.

Recruitment of Quality Teachers

Barrier 2: LOW STANDARDS THAT CONTRIBUTE TO A LACK OF RESPECT FOR THE PROFESSION

- **Lack of rigor in many teacher preparation programs**
- **Lack of a set of standard qualifications for entering the profession that are based on the ability to teach**

PROMISING ALTERNATIVES

- Create demanding and challenging curriculum that shows evidence of producing quality teachers.
- Develop rigorous, performance-based assessments to license teachers based on the content knowledge and teaching skills teachers need to be effective, and enforce strictly.

EXAMPLE

The Mid-Atlantic Regional Teacher Project—an alliance among Maryland, the District of Columbia, New Jersey, Pennsylvania, and Delaware—raised the ceiling on teacher quality by recommending to state policymakers a core set of assessments for high-performing education graduates, setting optional higher cut scores for designation as a Meritorious New Teacher, and granting Meritorious New Teachers full reciprocity of credentials among states and regions. Meritorious New Teachers may also be eligible for higher starting salaries.

Recruitment of Quality Teachers

Barrier 3: BUREAUCRATIC PRACTICES

- **Late budget decisions**
- **Hiring and personnel practices that**
 - **unnecessarily delay notices of job openings;**
 - **fail to generate timely responses to inquiries from potential applicants;**
 - **lose job applications; and**
 - **tolerate disorganized interviewing and candidate selection.**

PROMISING ALTERNATIVES

- Streamline hiring practices. Evaluate budgets and school needs in late winter in order to recruit the most talented teachers early.
- Pool regional resources to create an interstate, user-friendly, Web-based hiring process. This system would post job notifications, perform searches for applicants with specific qualifications, promptly respond to requests for information, and track applications.

EXAMPLES

The New Haven Unified School District in the San Francisco Bay Area created a computerized applicant-tracking system that can be searched based on multiple criteria. For example, a principal could search for a teacher with a special education credential and 10 years of experience who also can coach women's basketball. The district also uses video technology to expand its interviewing capabilities—holding interactive videoconferences with applicants from around the world.

Recruiting New Teachers Inc. operates the National Teacher Recruitment Clearinghouse Web Site— www.recruitingteachers.org—a one-stop source of information for recruiters, teachers seeking jobs, prospective teachers, and school districts seeking ways to retain teachers.

Recruitment of Quality Teachers

Barrier 4: INADEQUATE ASSESSMENT OF NEEDS

- **Failure to collect the data needed to assess statewide teacher supply-and-demand needs**
- **Lack of evaluation of state and local investments in recruitment**

PROMISING ALTERNATIVES

- Develop a statewide comprehensive plan to examine sources of teachers, rates of attrition, and numbers of teacher vacancies by district, grade level, and subject area. Gather information from other states as well; recruitment strategies may be strengthened by adopting a regional approach.
- Create a systematic evaluation system that regularly assesses the effectiveness of state recruitment efforts and informs future decisions about funding.

EXAMPLE

In the Public Education Network's Teacher Quality Initiative, community-based, nonprofit organizations in high-poverty communities nationwide are collecting data on the qualifications of teachers in their districts. Data will be used to engage the public in improving the quality of teaching available to the most disadvantaged children in their communities and to spearhead community-based strategic planning processes to address the disparities between the qualifications of teachers in high- and low-poverty schools.

Recruitment of Quality Teachers

Barrier 5: LACK OF COMPREHENSIVE STRATEGIES

- Lack of statewide strategies to address teacher shortages
- No focus on special shortage areas

PROMISING ALTERNATIVES

- Fund the education of individuals who go into critical shortage areas.
- Go beyond level funding and allocate more to schools that serve poor children. This would enable districts to pay more to teachers to work in more challenging settings and reverse the current drain of qualified teachers from places where they are needed most.
- Invest in people who currently live in high-needs communities; adopt a “grow-your-own” approach to recruiting new teachers.

EXAMPLE

Answering Georgia’s call for more diversity among teachers, the Pathways to Teaching Careers partnership among Armstrong Atlantic State University, Savannah State University, and Savannah/Chatham County Schools enlists noncertified school district employees—paraprofessionals, secretaries, substitute teachers, bus drivers, cafeteria managers—who have exemplary work records, better-than-average-grades, and a sincere commitment to teaching. These individuals are offered tuition and other support so they can earn degrees leading to teacher certification. The program’s 60 graduates have a collective grade point average of 3.0, a 96 percent retention rate, and 24 have been named Teacher of the Year for their schools.

Preparation of Quality Teachers

Why Is Action So Urgently Needed?

- **New Teachers Not Ready For Today's Classrooms.** Fewer than 30 percent of new teachers report feeling "very well prepared" to integrate technology into instruction, meet the needs of diverse students and those with limited English proficiency, address the needs of special education students, and implement curriculum and performance standards.⁹
- **Teacher Education Faculty Too Removed from Today's Classrooms.** More than 50 percent of teacher educators report that it has been more than 15 years since they were K-12 teachers.¹⁰
- **Too Little Insistence That Teacher Education Programs Meet High Standards.** For example, unlike academic training programs for other professions, fewer than 40 percent of teacher education programs are nationally accredited.¹¹

Preparation of Quality Teachers

Barrier 1: LACK OF RIGOROUS STANDARDS

- **Minimal or nonexistent requirements for entry into teacher education programs**
- **Less academic rigor than required for other college programs**

PROMISING ALTERNATIVES

- Develop specific standards, such as a minimum grade point average (GPA) and a successful interview to enter teacher education programs.
- Implement standards for ensuring effective teacher preparation that is rigorous and challenging, strictly apply those standards, and carefully evaluate programs based on the standards.

EXAMPLE

Prerequisites for applying to the University of Washington's Masters in Teaching program include: a 3.0 GPA, two letters of recommendation, a writing composition course, a course on the education needs of an ethnic group, and a minimum of 60 hours of experience in an instructional setting with students at the age level the applicant wishes to teach. After meeting these basic requirements, strong applicants are selected by an admissions committee to undergo an interview with faculty and are asked to write a short, extemporaneous essay on a general topic.

In addition to having competitive admissions standards (average SAT score of admitted students is 1240), the Peabody College of Education at Vanderbilt University in Nashville, Tennessee, wanted to ensure that standards for its programs were comparable to those of other highly respected programs on campus. Peabody conducted a study comparing the grades of students in its college with the grades of students in Vanderbilt's College of Arts and Sciences; it found no difference—demonstrating that the average grades of education students are comparable to those in arts and sciences.

Preparation of Quality Teachers

Barrier 2: INADEQUATE SUPPORT AND STATUS

- **Unequal distribution of university resources; allotment of dollars per student often much less for education majors**
- **Inferior, second-class status of schools of education on university campuses**

PROMISING ALTERNATIVES

- Identify costs involved in making teacher preparation programs high quality and reprioritize budget expenditures.
- Increase the stature of schools of education on university campuses.

EXAMPLES

Indiana University in Bloomington, Indiana, operates under a system called “Responsibility Centered Management,” where each department keeps and manages the funds that it generates; under this system, school officials report that their School of Education is one of the most efficient and highly productive on campus. In addition, the president of the university consistently pledges money from his office’s discretionary fund to the School of Education—giving high profile to projects such as the 21st Century Teacher’s Project, which focuses on bringing together the College of Arts and Sciences, the College of Education, and Pre K-12 school personnel.

Xavier University, in New Orleans, moved its department of education to the signature building on campus, enhancing the department’s status and making a powerful statement to both the community and the institution regarding the importance of teacher education.

Preparation of Quality Teachers

Barrier 3: LACK OF ACCOUNTABILITY

- **Lack of accountability for high-quality teacher preparation**
- **Lack of responsibility taken by entire institutions of higher education for preparing teachers—viewed as responsibility of only the teacher preparation programs**
- **Failure of institutions of higher education to be responsive to state and district teacher supply-and-demand issues**

PROMISING ALTERNATIVES

- Determine measures of the effectiveness of teacher preparation programs and report results to the public. At a minimum, require institutions to report their pass rates on certification and licensing examinations and to disaggregate the rates by race and ethnicity.
- Change funding formulas to reward teacher education institutions that increase the number of teachers they produce in high-needs subject areas.

EXAMPLES

In Texas, universities and colleges with teacher preparation programs are being held accountable for their own success in preparing students. Colleges with pass rates on teacher certification tests below 70 percent (soon to be 75 percent) lose the right to prepare teachers. To ensure that teacher education programs educate all prospective teachers to high standards, the 70 percent pass rate must also be met by the programs' individual racial/ethnic subgroups—70 percent of all black graduates, Hispanic graduates, etc.

California State University, Long Beach (CSULB) provides a Teacher Warranty on all of its newly prepared teachers. Any first-year teacher (holding a preliminary credential from CSULB and assigned to teach in his or her field) or the employer may contact the College of Education to request support or assistance. The College of Education will meet with the school district representative and the new teacher to determine whether there is a need for support and, if so, to develop an individualized plan of assistance from the College of Education for the new teacher. This service is free to the new teacher and the school district.

Preparation of Quality Teachers

Barrier 4: LACK OF COLLABORATION

- **Isolated departments of education; absence of formal linkages between schools of education and other instructional units on campus that are involved in preparing teachers**
- **Few incentives for professors to collaborate with local schools and teachers**
- **Little collaboration between institutions of higher education and K-12 educators**

PROMISING ALTERNATIVES

- Increase communication and collaboration among faculty of arts and sciences and education to ensure that prospective teachers learn their subject matter and the methods for teaching it well.
- At a minimum, ensure that arts and sciences faculty, as well as education faculty, receive and understand the K-12 student content and performance standards for his or her discipline.
- Revise tenure and promotion policies to include teaching and service in K-12 schools as forms of scholarship.
- Require university faculty to teach and observe in K-12 schools.
- Teach methods courses in teams that include university professors and K-12 master teachers on the campuses of elementary and secondary schools.
- Appoint K-12 educators to university teams that design, implement, and evaluate teacher education programs.

EXAMPLE

Recognizing the necessity of collaboration with all key players in teacher education, New Jersey's Montclair State University created a Center of Pedagogy bringing university faculty in education, university faculty in the arts and sciences, and public school faculty under one umbrella. The center requires full participation of what they term the "tripartite" in conceptualizing, planning for, implementing, and studying the education of educators and the education of students in the schools.

Preparation of Quality Teachers

Barrier 5: INADEQUATE AND POORLY STRUCTURED CURRICULUM

- **Lack of consensus on a core curriculum for teacher education**
- **Disjointed curriculum—teaching theory separate from practice**
- **Inadequate field experiences that come too late in a teacher education program, are too short to provide adequate teaching practice, and are not focused on preparing teachers to teach where they are needed most**
- **Lack of selection criteria and training to ensure high-quality supervising teachers for student teachers**
- **Little incorporation of state K-12 student content and performance standards in teacher education core curricula**

PROMISING ALTERNATIVES

- Establish a set of core courses in the arts and sciences that college freshman and sophomores are required to take in order to be admitted into a teacher education program.
- Adopt a rigorous, core curricula in pedagogy based on the best research into how students learn and on the content-specific teaching methods shown to be effective with students.
- Address state K-12 student standards and school performance expectations as a central focus of the curricula in teacher education programs.
- Link the theory taught in education courses to practical teaching experiences.
- Require early field experiences in a variety of K-12 classrooms, including at least one field experience in an urban or high-poverty school before student teaching.
- Extend student teaching time to provide a meaningful learning experience
- Establish standards for supervising teachers, train them to effectively mentor student teachers, and compensate them for their extra responsibilities.

EXAMPLE

A partnership among the University of Cincinnati, Cincinnati Public Schools, and the Cincinnati Federation of Teachers offers a five-year training program to prospective teachers that culminates in a paid, year-long internship.

Certification of Effective Teachers

Why Is Action So Urgently Needed?

- **Too Many Students With Uncertified Teachers.** Nationwide, 30 percent of new public school teachers are hired without full certification.¹²
- **States Feel Compelled to Disregard Their Own Certification Standards.** At least 43 states report that they grant waivers so that school districts can hire teachers who are not fully certified.¹³
- **Expectations for Students Often Greater Than Expectations for Their Teachers.** Studies suggest that basic literacy, content knowledge, and skill levels that many states require of teachers is significantly below what they require of students on high school graduation tests.¹⁴

Certification of Effective Teachers

Barrier 1: LOW STANDARDS

- **Low and inappropriate standards for teacher certification that do not substantiate an ability to perform in the classroom (e.g., certifying teachers via a norm-referenced exam or setting very low cut scores to ensure a large pool of candidates)**
- **Lack of accountability or repercussions for hiring unqualified teachers**

PROMISING ALTERNATIVES

- Develop rigorous, performance-based assessments to license teachers based on the content knowledge and teaching skills teachers need to be effective.
- Create an interstate coalition and work with those neighboring states to collectively raise standards.
- Insist that districts notify parents when their child is taught by an uncertified teacher and publicly report the percentage of uncertified teachers by subject, grade level, and poverty level of the school.

EXAMPLES

The Mid-Atlantic Regional Consortium—an alliance among Delaware, Maryland, the District of Columbia, New Jersey, and Pennsylvania—recommended regional action to implement a three-tiered licensure system that recognizes teachers for their increased effectiveness in the classroom.

Thirty-two states are working together through the Interstate New Teacher Assessment and Support Consortium (INTASC) to develop standards and assessments for what new teachers should know and be able to do. Indiana and Connecticut are currently piloting these standards in math and English.

New York created a state policy requiring that by 2004 there will be no uncertified teachers in the state school system and after September 1999, only certified teachers will be hired in New York City's 97 lowest ranked schools.

Texas passed legislation that parents will be notified in writing within two weeks of the assignment of their child to an uncertified teacher (including long-term substitutes).

Certification of Effective Teachers

Barrier 2: BUREAUCRATIC PRACTICES

- **Complicated and restrictive licensure systems that discourage talented people from becoming teachers**
- **Restrictive, state-specific certification systems that serve as barriers to qualified out-of-state teacher applicants**

PROMISING ALTERNATIVES

- Evaluate the components of certification and ask: "Do these criteria really promote quality?" Eliminate unnecessary "hoops" and make the system more outcomes-focused.
- Accept out-of-state licenses and honor previous years of service on salary schedules, but require out-of-state teachers to undergo a rigorous performance review during the first year.

EXAMPLE

The Mid-Atlantic Regional Teacher Project—an alliance among Maryland, the District of Columbia, New Jersey, Pennsylvania, and Delaware—raised the ceiling on teacher quality by working together as a region: It recommended full regional reciprocity, with portable pension and salary credits, for those who meet “exemplary” performance levels, and it gave priority listing to these candidates on a regional “electronic hiring hall.”

Professional Development for Teachers

Why Is Action So Urgently Needed?

- **Too Much of the Wrong Kind of Professional Development.** For example, while approximately 85 percent of teachers report receiving less than eight hours a year of professional development in a specific area, teachers report and research confirms that professional development of longer duration is more effective.¹⁵
- **Too Little Attention to Real-World Problems Teachers Face.** Only one in five teachers report feeling "very well prepared" to address the needs of diverse students and those with disabilities, and to integrate technology into instruction.¹⁶
- **Low Priority for Investing in Quality Professional Development.** Communities often cut corners in spending for professional development despite evidence that such spending produces greater gains in student learning than other uses of budgeted funds.¹⁷

Professional Development for Teachers

Barrier 1: INADEQUATE FUNDING

- **Lack of priority for funding professional development; cutting those funds first when budgets are tight**

PROMISING ALTERNATIVES

- Make professional development a priority, consistently dedicating a significant percentage of state and local education budgets to high-quality professional development.
- Supply matching funds for districts that significantly increase their professional development investments.

EXAMPLE

The Boston school system is overhauling the way it organizes and finances professional development, based on a joint report by the Boston Plan for Excellence and the Boston Public Schools that showed that most teacher-training efforts are not coordinated with district goals. For example, immediately following this report, the superintendent redirected \$3 million in professional development funds from “scattered programs,” those not linked with district goals, to finance new math coaches—on-site experts who support and train teachers and thereby further a major goal of the district in the area of math education.

Professional Development for Teachers

Barrier 2: INSUFFICIENT TIME

- **Fragmented and insufficient time for teachers to engage in professional development activities**
- **Lack of built-in time for team planning and collaboration**

PROMISING ALTERNATIVES

- Create job-embedded, collaborative, content-focused professional development opportunities sustained throughout the school year.
- Implement year-round contracts for teachers to provide extra time for professional development, curriculum planning, and collaboration to improve student learning.
- Restructure the school day and/or week to provide longer, uninterrupted periods of planning time.
- Rearrange teachers' daily schedules to allow regular back-to-back planning periods or a planning period coupled with a lunch hour, and create common planning periods for teachers on the same team or grade level to collaborate, observe, and coach one another.
- Provide summer institutes that allow teachers to "recharge their intellectual batteries" through intensive exploration in their field. Investigate ways to make the summer institutes accessible to a statewide teacher audience—such as the use of distance learning technology.

EXAMPLE

In Bellevue, Washington, district schools ensure that all teachers have time each week to engage in professional development and to work together as a faculty to address student needs. By “banking time”—lengthening four school days of each week and granting an early dismissal to students on the fifth—the schools guarantees an extra block of time for all teachers.

Professional Development for Teachers

Barrier 3: LACK OF RESULTS-DRIVEN PROFESSIONAL DEVELOPMENT

- **Failure to evaluate professional development to see if it is effective and relevant to needs**
- **Inappropriate recertification requirements that focus on attendance in workshops and graduate courses and fail to enhance knowledge and skills for improving student learning**

PROMISING ALTERNATIVES

- Evaluate professional development based on improving teaching, improving student learning, and narrowing student achievement gaps. Eliminate or modify programs that do not show progress in these areas.
- Reexamine requirements for continuing licensure; move beyond traditional requirements of graduate course work and degrees, and give equal weight to informal standards-based and performance-oriented professional development.
- Redirect professional development funds that are used for tuition reimbursements and salary increases for advanced degrees that are unrelated to what a teacher is teaching to programs that provide more effective professional development and relate directly to a teacher's teaching assignment.

EXAMPLE

The Kansas State Board of Education adopted a Quality Performance Accreditation (QPA) Initiative that requires that professional development activities demonstrate changes in teachers' instructional practices and impact student achievement. Lawrence Public Schools volunteered to pilot this "results-based" accreditation model and requires its schools to craft a school improvement plan each year that details the connection among professional development, increased teacher effectiveness, and student achievement.

Retention of Quality Teachers

Why Is Action So Urgently Needed?

- **High Rate of Attrition Among Beginning Teachers.** 22 percent of new public school teachers leave the profession in the first three years.¹⁸
- **Too Little Help for Newest Teachers.** Only 44 percent of teachers report having participated in formal first-year mentoring programs, even though participation in a mentoring program is known to reduce the attrition rate by up to two-thirds.¹⁹
- **Teaching Is a Revolving Door.** Teacher turnover accounts for 66-75 percent of new hires.²⁰
- **Lack of Respect.** Fewer than 12 percent of public school teachers report that they are “very satisfied” with the level of esteem in which society holds the teaching profession.²¹

Retention of Quality Teachers

Barrier 1: LACK OF OPPORTUNITIES TO ADVANCE

- **Flat salaries that do not increase significantly over time**
- **Lack of compensation for increased knowledge and outstanding performance**
- **Limited options for teachers to advance without leaving the classroom**
- **Lack of portability of credentials, pensions, and credited years of experience when moving from state to state and district to district**

PROMISING ALTERNATIVES

- Create a career ladder for teachers—providing increased compensation to exemplary teachers who take on new responsibilities and leadership roles.
- Create multitiered licensure systems based on experience and quality teaching and competitive pay schedules based on knowledge and skills valued by the school or district.
- Agree as a region on a core set of licensure requirements and assessments to enable portability of credentials. At a minimum, create full portability of years of experience, credentials, and pensions among different districts and states for highly accomplished teachers who achieve advanced certification through the National Board for Professional Teaching Standards.

EXAMPLES

The Rochester Career in Teaching Program, designed by teachers in Rochester, New York, established four career development stages: intern, resident, professional, and lead teacher. Lead teachers receive substantial stipends, from 5-15 percent of their salaries, for their growing leadership roles in areas such as designing curriculum, mentoring new teachers, and facilitating special projects.

Thirty-nine states and nearly 200 school districts now provide financial incentives to teachers who become National Board Certified. Many states and districts are using these teachers in leadership roles and granting them full portability of credentials.

The Milken Family Foundation's Teacher Advancement Program (TAP) is an education reform strategy that applies five interrelated principles: multiple career paths; market-driven compensation; performance-based accountability; ongoing, applied professional growth; and expanding the supply of high-quality educators. Five TAP demonstration schools are now open in Arizona, and several states plan to open TAP schools in fall 2001.

Cincinnati public schools, in collaboration with the union, ratified plans to change their traditional pay schedule to one based on classroom performance. Teachers advance up a four-step career ladder by meeting district goals. In addition to undergoing comprehensive reviews, teachers must submit portfolios that include logs of parent contacts, sample lesson plans and student work, and a list of professional development activities.

Retention of Quality Teachers

Barrier 2: POOR WORKING CONDITIONS

- **Overwhelming workloads, especially for new teachers who are**
 - **given the most challenging students;**
 - **asked to teach multiple subjects;**
 - **assigned the responsibility of extracurricular activities; and**
 - **asked to teach classes for which they are not certified.**
- **Failure to provide teachers with basic supplies needed to do their job such as paper, text books, office supplies, and access to telephones; teachers n often expected to buy their own supplies**
- **Lack of formal induction program for new teachers with an effective, high-quality mentor**
- **Large, unmanageable class sizes**

PROMISING ALTERNATIVES

- Encourage schools to assign first-year teachers reduced teaching loads. End the practice of assigning teachers—especially new teachers—to classes that are out of their field. Give more challenging students and extracurricular activities to veteran teachers and appropriately compensate them for their extra responsibilities.
- Phase in smaller class sizes, taking the time to ensure there are enough qualified, well-trained teachers.
- Create and foster programs that provide effective mentoring in which mentors are carefully selected, trained and compensated.

EXAMPLE

California's Beginning Teacher Support and Assessment program (BTSA), which provides a variety of support services and professional development opportunities for first-year and second-year teachers, reduced the attrition rate of beginning teachers from 37 percent to 9 percent in five years. As a result, the California legislature has mandated and funded induction programs for all new teachers.

Retention of Quality Teachers

Barrier 3: LACK OF RESPECT FOR TEACHERS AS PROFESSIONALS

- **Disregard for teachers' expertise; forcing teachers to teach out-of-field**
- **Failure to consult teachers on issues that impact the classroom: little respect for professional judgment**
- **Micromanagement of teachers and their time**
- **Inappropriate administrative and clerical assignments for teachers**

PROMISING ALTERNATIVES

- Analyze tasks teachers are required to do and determine those (such as collecting fees, issuing books, etc.) that could be handled by volunteers or clerical staff.
- Analyze the root causes for the need to assign teachers out-of-field and consider creative ways to alleviate that need; consider permitting and even encouraging job-sharing or other part-time arrangements for qualified, well-trained teachers.
- Appoint exemplary teachers to state and local education advisory boards

EXAMPLE

The South Carolina Teacher Forum provides opportunities for district Teachers of the Year to dialogue with key leaders and policymakers about education issues and to participate in discussions on national, state, and local educational issues. Forum teachers serve as advisors to the state superintendent and other policymakers.

Retention of Quality Teachers

Barrier 4: WEAK SCHOOL LEADERSHIP

- **Few principals who understand how to be instructional leaders and how to support teachers and students in their learning**
- **High turnover rate among principals, leading to instability, inconsistency, and ineffectiveness in school leadership**
- **Inability to remove ineffectual teachers and administrators, leading to low staff morale**

PROMISING ALTERNATIVES

- Develop comprehensive approach to recruiting, preparing, and supporting principals who can serve as instructional leaders.
- Work with unions to establish clear standards for the granting of tenure and to incorporate peer review into teacher and principal evaluation.

EXAMPLE

Vanderbilt University's Peabody College of Education is creating a new Principal's Academy that focuses primarily on the principal's role as a leader of learning. Coursework includes intense study of how people learn and of how to organize schools around key issues of learning.

In collaboration with the teachers' union, schools in Toledo, Ohio, instituted peer review in which teachers are responsible for supporting, evaluating, and counseling their colleagues. As a result, about 10 percent of the new teachers are not rehired as compared to about 1-2 percent under traditional procedures. Approximately one-third of teachers referred to intervention each year have left teaching by the end of the year through resignation, retirement, or dismissal.

Development of Effective Leaders

Why Is Action So Urgently Needed?

- **Severe Shortage of Qualified Principals.** Fifty percent of school districts report a shortage of qualified candidates for the principal positions they were attempting to fill.²²
- **Few Districts with “Grow-Your-Own” Programs.** Only 27 percent of school districts report having programs to recruit and prepare principal candidates from among current staff, such as experienced teachers or assistant principals.²³
- **Too Little Support for New Principals.** Just under half (46 percent) of school districts report the existence of a formal induction or mentoring program for new principals.²⁴
- **Mistaken Priorities.** Despite the key role that instruction plays in increasing student achievement, only 10 percent of all teachers “strongly agreed” that their principal talked to them frequently about instructional practices.²⁵

Development of Effective Leaders

Barrier 1: INEFFECTIVE TRAINING PROGRAMS

- **Weak and noncompetitive selection criteria in administrator training programs**
- **Lack of focus on recruiting candidates who would make effective school leaders**
- **Low standards, minimal academic rigor**
- **Administrator training programs rarely built on state K-12 achievement goals and the need for principals to identify and promote good instruction**
- **Lack of formal induction programs and mentoring opportunities**

PROMISING ALTERNATIVES

- Develop specific standards, such as a minimum GPA, a successful interview, and evidence of successful classroom experience, for entry into administrator education programs.
- Aggressively recruit experienced, exemplary teachers to become principals.
- Develop state standards that define the critical components of effective administrator education programs and rigorously evaluate programs based on these standards.
- Provide alternative paths to principal certification that maintain high standards through field-based, performance-oriented preparation and evaluation.
- Ensure that all new principals have the opportunity for high-quality induction that includes mentoring and feedback on performance.

EXAMPLE

To be admitted to the University of New Mexico's Educational Leadership Program, potential students must undertake a daylong series of interviews and exercises to demonstrate their leadership potential. Once admitted, students must complete three internships, including one served under a principal.

Development of Effective Leaders

Barrier 2: WEAK, BUREAUCRATIC REQUIREMENTS

- **Inadequate state certification requirements based too much on candidates' transcripts and course attendance**

PROMISING ALTERNATIVES

- Revise and streamline certification requirements to include school internships and assessments of candidate performance.

EXAMPLE

The Interstate School Leaders Licensure Consortium (ISLLC), a consortium of states and associations formed for the purpose of developing model standards and assessments for school leaders, created a framework to better assess principal candidates for licensure and relicensure and to establish a foundation on which certification programs can be constructed.

Barrier 3: INADEQUATE COMPENSATION AND AUTHORITY

- **Poor salaries, similar to those of experienced teachers, which provide little incentive for teachers to pursue the difficult job of school principal**
- **Insufficient authority compared to responsibility**

PROMISING ALTERNATIVES

- Raise salaries of school principals and make them more competitive with leaders in other fields.
- Give principals authority in hiring their own staff, selecting instructional materials, and making independent decisions about student discipline while increasing their accountability.

Development of Effective Leaders

Barrier 4: LITTLE FOCUS ON RECRUITING QUALIFIED PRINCIPALS INTO HIGH-NEEDS SCHOOLS

- **Lack of a district or statewide comprehensive strategy to get strong leaders in the communities where needs are most critical**

PROMISING ALTERNATIVES

- Provide various incentives and improve working conditions in high-poverty schools to recruit and retain principals who will, in turn, recruit and retain good teachers.
- Encourage and support “grow-your-own” approaches to recruitment in high-needs communities.

EXAMPLE

The Willard School District, in Willard, Missouri, faced great difficulties in filling its administrator positions. To address this problem, the district created the Administrator Apprentice Program—a “grow-your-own” approach to recruiting and preparing school leaders. A current teacher may apply to the program and, once accepted, he or she is paired with a mentor principal, becomes involved in school and district policymaking, shadows and eventually fills in for area principals, and takes on a major improvement project for the district. Apprentices receive extended release time and a stipend for their increased responsibilities.

Development of Effective Leaders

Barrier 5: UNCLEAR AND OVERWHELMING RESPONSIBILITIES

- Fractionalized and expansive scope of work that prevents principals from focusing on instructional leadership
- Unclear standards and lack of accountability

PROMISING ALTERNATIVES

- Establish a set of standards for what it means to be an effective principal and require periodic evaluations according to the knowledge, skills, and dispositions defined in those standards.
- Consider the effects of new policies on the workload of principals with an eye to streamlining their scope of work.
- Create multiple positions to effectively address the dual roles of school manager and instructional leader.
- Encourage shared or distributive leadership that extends authority and cultivates collaboration with teachers, students, and support staff by including their input in principal evaluations.

EXAMPLE

Farragut High School in Knoxville, Tennessee, established a shared-leadership administration team comprised of six principals. Each principal has a distinct role: a curriculum principal who deals strictly with instruction and works with teachers, a principal for each of the four grade levels who follows a class through to graduation and deals with student and parent issues, and an executive principal that oversees day-to-day school operations and coordination of the entire team.

Development of Effective Leaders

Barrier 6: LACK OF PROFESSIONAL SUPPORT

- **Lack of resources needed to help teachers meet standards and achieve expected results**
- **Isolation as a result of few opportunities to collaborate with teachers in the school and other leaders outside the school**
- **Lack of job security; availability of only short-term contracts even for principals with proven effectiveness**

PROMISING ALTERNATIVES

- Provide resources necessary to meet expectations (e.g., money for after-school tutors, teacher aides, classroom resources, guidance counselors, etc.).
- Adjust the organization of the school day or extend the school year to create times when teachers, administrators, and outside experts can meet to talk about practice.
- Create a network of outstanding principals who support each other's work and mentor aspiring school leaders.
- Grant three-year renewable contracts and some protection from removal to allow principals to focus on long-term goals without fear of political fallout. With this job security however, principals must regularly demonstrate their ability to meet state standards.

EXAMPLE

The Annenberg/Corporation for Public Broadcasting Channel recognized the importance of instructional leadership in the principal role and aired a free series of professional development workshops entitled "Principles for Principals." Focusing on improving student achievement in mathematics and science, workshops such as "Math/Science Skills: What's Important?" and "Changing Pedagogy" could be viewed live or taped for later use. Supplementary materials were distributed, and e-mail listservs encouraged further discussion among peers.

Questions and Strategies for State Policymakers

Removing the barriers to quality teaching will require the efforts of leaders at all levels of our educational system—from principals to university presidents. State policymakers, however, play a critical role in this effort by providing both pressure and support for educators to make needed changes.

Below we provide some questions and proactive strategies that state policymakers can use towards reaching their teacher-quality goals. We encourage state policymakers to think of these individual suggestions in terms of a larger, comprehensive, and cohesive state policy strategy—one that establishes a framework for sustained efforts to ensure a talented, dedicated, and well-prepared teacher in every classroom.

Collect Data and Report Statistics

- Do we base our policy decisions on facts or on assumptions about our teacher quality challenges? It is difficult to address specific needs if the problems have not been accurately assessed. For example, to successfully address teacher shortages, examine your state's sources of teachers, rates of attrition, numbers of teacher vacancies by district, grade level and subject area. Find out why teachers are leaving the classroom. Having accurate data will give you credibility and help you to garner support for your reform efforts. Reporting statistics related to teacher quality will help hold your system accountable and maintain momentum for positive change.

Fund Research

- Do we really know the answers to important questions? Seek answers to critical questions related to teaching. Fund research on what works. For example, Tennessee wanted to know the answer to “Does reducing class size make a difference for student achievement?” and the state funded the sound research that could provide valid answers. In relation to improving teaching, one might ask: “Are teachers prepared through alternative routes as effective in promoting student learning as those prepared in traditional settings?”

Utilize Existing Research

- Is the information that we need already available? Seek existing sources of research to save precious resources and avoid duplication. Education research funded by the U.S. Department of Education's Office of Educational Research and Improvement (OERI) includes: the National Research and Development Centers, www.ed.gov/offices/OERI/ResCtr.html; the Regional Education Laboratories, www.ed.gov/prog_info/Labs/; and the National Center for Education Statistics <http://nces.ed.gov/>. For more information, check OERI's Web site at: www.ed.gov/offices/OERI/research.html

Provide Money to Test New Ideas and Approaches

- Are we putting financial support behind promising ideas and strategies? Are we testing the models we would like to implement statewide? Support various pilot projects and evaluate their results—from granting year-round teaching contracts to supporting knowledge- and skills-based pay.

Offer Incentives

- Are we providing incentives to encourage practices that will help teachers be more effective? For example, offer competitive grants to those schools and districts that want to set up programs to support new teachers or to redesign school schedules to provide teachers with uninterrupted blocks of time to work together collaboratively. Reward colleges and universities that increase the number of teachers prepared and willing to teach in high-needs subject areas.

Identify Models of Excellence and Disseminate Them

- Are we recognizing what works and sharing those successes with others? Identify models in your state of effective recruitment, preparation, induction, and professional development programs.

Provide Resources for Necessary Changes

- Are we providing the necessary resources to make the changes that we expect? For example, have teachers been provided the curriculum materials and training needed to implement state standards? Avoid mandating excellence without necessary supports.

Use the Bully Pulpit

- Do we recognize the power of our words and use them to encourage needed change? Exhort education leaders and communities to support policies and practices that will help teachers be more effective in the classroom and end practices that serve as barriers to quality teaching.

Collaborate with Other States and Regions

- Could we be more effective if we worked with other states? Work with other states to develop collaborative strategies to improve teaching. For example, agree as a region on a core set of licensure requirements and assessments to help facilitate getting teachers where they are needed most. Create full portability of years of experience, credentials, and pensions among different states and districts.

Apply for Federal and Private Funds

- Are we tapping into all possible resources for funding? Look for other sources of funds that can supplement state and local efforts. Possible sources include foundations, corporations, and the federal government.

U.S. Department of Education's Major Grant Programs for Improving Teaching

Teacher Quality Enhancement Grants

Three discretionary grant programs designed to increase student achievement through comprehensive approaches to improving teacher quality:

- *State Grants* to support comprehensive statewide reforms to improve teacher quality;
- *Partnership Grants* to bring about fundamental change and improvement in teacher education; and
- *Teacher Recruitment Grants* to reduce shortages of qualified teachers in high-need school districts.

www.ed.gov/offices/OPE/heatqp/

Eisenhower Professional Development Federal Activities

Discretionary grants to projects of national significance that contribute to the design and implementation of high-quality professional development in all core subjects. (The projects currently supported under this program include the Eisenhower National Clearinghouse, a teaching standards project, and nine initial teacher professional development projects.)

www.ed.gov/offices/OERI/ORAD/eisenhow.html

Eisenhower Professional Development State Grants

Formula grants to states and local school districts that support high-quality professional development. A portion of the funds is reserved for competitive subgrants to institutions of higher education and non-profit organizations to conduct similar activities.

www.ed.gov/pubs/ArtsEd/part5.html

Class Size Reduction Program

Formula grants to states to help local schools reduce class size in grades 1-3 to a nationwide average of 18 students per class. Up to 15 percent of district allocations may be used to support professional development that promotes high-quality teaching, including helping teachers learn new instructional techniques for smaller classes.

www.ed.gov/offices/OESE/ClassSize/

Reading Excellence Program

Discretionary grants to states to help improve reading instruction and help all children read well and independently by the end of third grade.

www.ed.gov/offices/OESE/REA/

Bilingual Education Professional Development

Four discretionary grant programs designed to meet the critical need for fully certified bilingual ESL teachers and other education personnel to provide services to limited English proficient (LEP) students:

- *Teachers and Personnel Grants* to prepare bilingual education and ESL specialists
www.ed.gov/offices/OBEMLA/facts-tap.html;
- *Career Ladder Program* to upgrade the skills and qualifications of noncertified educational personnel, especially paraprofessionals; and to recruit and train secondary-school students for careers as bilingual teachers or other education personnel
www.ed.gov/offices/OBEMLA/facts-cl.html;
- *Training for All Teachers Program* to incorporate courses and curricula on instructional methodologies, strategies, and resources specific to the needs of LEP students into preservice and inservice professional development programs
www.ed.gov/offices/OBEMLA/facts-tfat.html; and
- *Graduate Fellowship Program* to assist individuals who are engaged in masters, doctoral, and postdoctoral study related to instruction of LEP children and youth in such areas as teacher training, program administration, research and evaluation, and curriculum development
www.ed.gov/offices/OBEMLA/facts-fellows.html.

Preparing Tomorrow's Teachers to Use Technology

Discretionary grants that support capacity building at teacher-preparation institutions to ensure that tomorrow's teachers can integrate technology effectively into the curriculum.

www.ed.gov/teachtech/

Personnel Preparation to Improve Services and Results for Children with Disabilities

Discretionary grants that (1) help address state-identified needs for qualified personnel in special education, related services, early intervention, and regular education, to work with children with disabilities; and (2) ensure that those personnel have the necessary skills and knowledge to be successful.

www.ed.gov/offices/OSERS/OSEP/Funding/Funding.html

For more information, also see the Department's Web site at: www.ed.gov/funding.html

Resources

Contact information for the examples in this document are listed below and may be useful in finding more information about efforts to improve teaching.

Annenberg/Corporation for Public Broadcasting Channel
(202) 879-9600

Bellevue School District
Ann Oxrieder, Director of Communication,
Assessment, and Special Projects
(425) 456-4000

**The Boston Plan for Excellence
in the Public Schools - Boston Annenberg Challenge**
Ellen Guiney, Executive Director
(617) 350-7600

**The California State Beginning Teacher Support
and Assessment Program (BTSA)**
Jean Treiman, Consultant for the California
Department of Education in the Professional
Development Unit
(916) 323-5788
www.cccoe.k12.ca.us/coe/curins/sbtsa/

California State University, Long Beach
The College of Education Teacher Warranty Program
(562) 985-4109

Cincinnati Public Schools
Kathleen Ware, Associate Superintendent
(513) 475-4803

Connecticut State Department of Education
Dr. Abigail Hughes, Associate Commission of the
Division of Evaluation and Research
(860) 566-2092
Dr. Raymond Pecheone, Chief of the Bureau of
Program and Evaluation (860) 566-5352
www.state.ct.us/sde

Faragut High School
Lovada Ferguson, Curriculum Principal
(865) 966-9775

Gwinnett County Public Schools
Berney Kirkland, Director of Community Relations
(770) 822-6508

Indiana University
Gerardo M. Gonzalez, Dean of Education
(812) 856-8001
Miles Brand, President
(812) 855-4613

**Interstate New Teacher Assessment and Support
Consortium (INTASC)**
Jean Miller, Director
(202) 336-7048
www.ccsso.org/intasc.html

**Interstate School Leaders Licensure Consortium
(ISLLC)**
Amy Mast, Senior Project Associate
(202) 326-8692 amym@ccsso.org
www.ccsso.org/isllc.html

Lawrence Public Schools
Santee Crowther, Division Director of Evaluation and
Standards
(785) 832-5000

Mid-Atlantic Regional Teacher Project
Tina Caldwell, Information Services
(800) 892-5550
www.temple.edu/departments/lss

Milken Foundation
Laura Haughey, Editor
(310) 998-2813

Montclair State University Center of Pedagogy
Dr. Cynthia Onore
(973) 655-4262
www.montclair.edu/Pages/CRC/Pedagogy.html

National Board for Professional Teaching Standards
Pat Wheeler, Vice President of Communications
(202) 465-2700
Jimmy Minichello, Media Relations Manager
(202) 465-2700

The New Haven Unified School District
Donna Uyemoto, Assistant Superintendent of Personnel
(510) 471-1100
www.nhusd.k12.ca.us/

**Pathways to Teaching Careers Program
Armstrong Atlantic State University**
Dr. Evelyn Baker Dandy, Program Director
(912) 921-2342
www.education.armstrong.edu/pathways/Home.htm
Savannah State University
Juanita J. Adams, Director
(912) 353-3190
www.savstate.edu/adm/aa/ptwhwy/index.htm

Peabody College of Education and Human Development at Vanderbilt University
Camilla Benbow
(615) 322-8407

Public Education Network's Teacher Quality Initiative

Dr. William Miles, Director of Policy Initiative
(202) 628-7460 wmiles@publiceducation.org

Recruiting New Teachers Inc.

Lisa Cella and Deb Mclean, Co-Directors of the Clearinghouse
(617) 489-6000
www.recruitingteachers.org

Rochester Career-In-Teaching Program

Tom Gillet, Chairperson, Career-In-Teaching Panel
(716) 546-2681

South Carolina Teacher Forum

(803) 323-4032
www.scctr.org/teacherforum.asp

Texas State Board for Educator Certification

Pamela Tackett, Executive Director
(512) 469-3003

University of New Mexico Educational Leadership Program

(505) 277-0441

University of Washington

Shirley Shimada, Elementary Admissions
(206) 543-1747
Marge Baylor, Secondary Admissions
(206) 685-8691
<http://depts.washington.edu/coe/TEP/prereqs.htm>

Willard School District

Julie Germann, Principal, Willard Elementary
(417) 862-6308

Xavier University of Louisiana

Norman Francis, President
(504) 483-7541

Endnotes

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- ¹ Greenwalls, S., Hedges, L.V., and Laine, P.D. (1996, Fall) "The Effect of School Resources on Student Achievement," *Review of Education Research*.
- ² Ingersoll, Richard, M. (1999, March) "The Problem of Underqualified Teachers in American Secondary School," *Educational Researcher*.
- ³ U.S. Department of Education, National Center for Education Statistics. (1999) *Teacher Quality: A Report on the Preparation and Qualification of Public School Teachers*. Washington, D.C.: Author.
- ⁴ U.S. Department of Education. (1999) *A Back-to-School Special Report on the Baby Boom Echo: No End in Sight*. Washington, D.C.: published online at: www.ed.gov/pubs/becho/
- ⁵ U.S. Department of Education, National Center for Education Statistics. (2000) *Progress Through the Teacher Pipeline: 1992-93 College Graduates and Elementary/Secondary School Teaching as of 1997*. Washington, D.C.: Author.
- ⁶ U.S. Department of Education, National Center for Education Statistics. (1997) *America's Teachers: Profile of a Profession, 1993-94*. Washington, D.C.: Author.
- ⁷ U.S. Department of Education, National Center for Education Statistics. (1999) *Digest of Education Statistics 1998*. Washington, D.C.: Author.
- ⁸ National Education Association. (1997) *Status of the American Public School Teacher, 1995-96: Highlights*. Washington, D.C.: Author.
- ⁹ U.S. Department of Education, National Center for Education Statistics. (1999) *Teacher Quality: A Report on the Preparation and Qualifications of Public School Teachers*. Washington, D.C.: Author.
- ¹⁰ Farkas, Stevee and Johnson, Jean with Duffett, Ann. (1997) *Different Drummers: How Teachers of Teachers View Public Education*. New York: Public Agenda.
- ¹¹ Art Wise of the National Council for the Accreditation of Teacher Education informed Candace Bertotti of the U.S. Department of Education by telephone in November 2000.
- ¹² U.S. Department of Education, National Center for Education Statistics. (1999) *1993-94 Schools and Staffing Survey*. Washington, D.C.: Author.
- ¹³ U. S. Department of Education. (1999) *The Initial Report of the Secretary on the Quality of Teacher Preparation*. Washington, D.C.: Published online at: www.ed.gov/offices/OPE/News/teacherprep/initialreport4.pdf.
- ¹⁴ Barth, Patte and Mitchell, Ruth. (1999, Spring) "How Teachers Licensing Test Fall Short." *The Education Trust*.
- ¹⁵ U.S. Department of Education, National Center for Education Statistics. *1993-94 Schools and Staffing Survey*.
- ¹⁶ U.S. Department of Education, National Center for Education Statistics. *Teacher Quality: A Report on the Preparation and Qualifications of Public School Teachers*.
- ¹⁷ Ferguson, Ronald. (1991, Summer) "Paying for Public Education: New Evidence on How and Why Money Matters," *Harvard Journal on Legislation*, v. 28. Cambridge, MA: Harvard Law School.
- ¹⁸ U.S. Department of Education, National Center for Education Statistics. *1993-94 Schools and Staffing Survey*.
- ¹⁹ Darling-Hammond, L. (1997) *The Right to Learn: A Blueprint for Creating Schools That Work*. San Francisco: Jossey-Bass Publishers.
- ²⁰ U.S. Department of Education, National Center for Education Statistics. (1999) *Predicting the Need for Newly Hired Teachers*. Washington, D.C.: Author.

²¹ U.S. Department of Education, National Center for Education Statistics. *Progress Through the Teacher Pipeline: 1992-1993 College Graduates and Elementary/Secondary School Teaching as of 1997*.

²² Education Research Service. (1998) *Is There a Shortage of Qualified Candidates for Openings in the Principalship? An Exploratory Study*. Alexandria and Reston, VA: National Association of Elementary School Principals and National Association of Secondary School Principals.

²³ Ibid.

²⁴ Ibid.

²⁵ U.S. Department of Education, National Center for Education Statistics. (1997) *Condition of Education, 1997*. Washington, D.C.: Author.